AMENDMENTS TO THE SPECIFICATION:

Please replace the title with the following amended title:

~~PRODUCTION CONTROL METHOD~~ METHOD FOR CONTROLLING PRODUCTION PROCESS.

Please replace the paragraph beginning on page 2, line 25, with the following amended paragraph:

By a near-infrared absorptiometry, a definite absorbance ~~specrum~~ spectrum can be obtained steadily for a specific component under a definite observation condition and with specific material properties, while the absorbance spectrum may subject to deviation in the height or position of absorbance peak due to alteration in the condition, such as concentration, particle size and temperature, or may vary due to interference with the absorption peaks for co-existing extraneous components. From a near-infrared absorbance spectrum, which includes, as mentioned above, ~~informations~~ information for a plurality of constituent ~~compoments~~ components, a calibration curve (correlation equation) for each component is prepared by means of a statistic technique, on the basis of which analysis is attained.

Please replace the paragraph beginning on page 4, line 26, with the following amended paragraph:

The present invention relates to the following method for controlling production process:

(1) A method for controlling production process without having resort to preparation of a calibration curve comprising

Please replace the paragraph beginning on page 5, line 6, with the following amended paragraph:

constructing a data base from a differentiation curve of a near-infrared spectrum chart obtained using a plurality of production products that had been judged by conventional chemical analysis to be rated products, by calculating standard deviations and the average intensity of the standard samples (standard average intensity) in respect of each wave length selected from the spectrum included in the said analysis range,

Please replace the paragraph beginning on page 5, line 6, with the following amended paragraph:

comparing, when the absorbance spectrum includes wave length(s) at which the analysis deviation of the absorbance spectrum of the analysis sample is outside a tolerance limit, the wave length showing the analysis deviation of the absorbance spectrum outside the tolerance limit with production ~~informations~~ information given preliminarily in the data base in order to find out what the control factor is to thereby obtain control data and

Please replace the paragraph beginning on page 6, line 2, with the following amended paragraph:

(2) The method as defined in the above (1), wherein the production ~~informations~~ information stored in the data base are those of the component material corresponding to the said selected wave lengths.

Please replace the paragraph beginning on page 6, line 18, with the following amended paragraph:

(6) The method as defined in any one of the above (1) to (5), wherein the selected wave lengths ~~stand each other at a distance~~ have an interval of 10 nm or less.

Please replace the paragraph beginning on page 6, line 21, with the following amended paragraph:

(7) The method as defined in the above (6), wherein the selected wave lengths ~~stand each other at a distance~~ have an interval of 2 nm or less.

Please replace the paragraph beginning on page 6, line 24, with the following amended paragraph:

(8) The method as defined in any one of the above (1) to (7), wherein the absorbance spectrum is processed by differentiation for the analysis samples.

Please replace the paragraph beginning on page 7, line 12, with the following amended paragraph:

Production processes to be controlled by the present invention include processes for producing chemical products, foods and other products. A particular preference is given to processes for producing chemical products, such as for example, polyolefins, polyesters and phenols. ~~Accordig~~ According to the present invention, analysis samples collected from the raw materials, solvents, water

content, intermediate products, production product, by-products and so on are analyzed by near-infrared absorptiometry to obtain observed values for these components and for material properties and, based on these observed values, the amounts of raw materials, solvent and water to be supplied to the production process, the production conditions, such as temperature, pressure and others, and so on are controlled so as to obtain the product having a predetermined quality.

Please replace the paragraph beginning on page 23, line 23, with the following amended paragraph:

It has been known that the absorbance of spectrum obtained by near-infrared observation suffers from shifting of the baseline due to external condition of, for example, temperature, water content, flow velocity and so on. This means that the absorbance value may be varied by such baseline shifting (~~alteraion~~ alteration in the absorbance) when the originally obtained spectrum is used as such, whereby considerable influence on the observation results should be taken into account. Such an influence of the baseline shifting can be suppressed by processing the original spectrum chart by differentiating it, whereby a steady derivative curve of the spectral absorption intensity chart can be obtained.

Please replace the paragraph beginning on page 25, line 18, with the following amended paragraph:

FIG. 2 shows a near-infrared absorption spectrum chart of a standard sample of a product judged as a rated product by conventional chemical analysis, in which the curve (A) represents the original absorption spectrum chart and the curve (B)

represents second derivative curve in which the original spectral chart is doubly differentiated. The original spectrum chart (A) shows a baseline shifting on the side of longer wave length and overlapped peaks, whereas the curve (B) exhibits a flattened horizontal baseline and isolately appearing emphasized absorption peaks. FIG. 3 shows the fluctuation width of the second derivative curves of the spectrum charts observed for a plurality of standard samples (20 samples in this EXAMPLE). FIG. 4 shows second derivative curves for a plurality of analysis samples (3 samples) collected from production process steps, in which a data base is constructed by data-processing the second derivative curves obtained in FIGS. 1 and 2 to produce the average intensity for selected wave lengths selected at an interval of 2 nm and standard deviations thereof, whereupon the horizontal line of level 0.000 is settled at the average intensity level and the horizontal lines of levels ± 3.000 are settled at the levels three times standard deviation σ, namely 3σ. FIG. 4 corresponds to the case where the production process is in normal operation, wherein the product ~~informations~~ information, such as the composition and the material properties of the analysis samples and so on, are included in the spectrum in the range of 800 - 2,500 nm. All the peaks in the range of 800 - 2,500 nm for the analysis samples lie within the range of 3σ, namely, they are within the ~~toleance~~ tolerance limit. The spectrum below 850 nm falls under visible ray region and includes ~~informations~~ information concerning color of the analysis sample, which are permitted to exceed the range of 3σ.

Please replace the paragraph beginning on page 26, line 25, with the following amended paragraph:

FIG. 5 indicates the case of operation where abnormal values appear and shows the second derivative curves for the analysis samples collected from production process steps similar to those of FIG. 4. Many of the peaks in the range of 800 - 2,500 nm are outside the value 3σ, namely abnormal values. FIGS. 6, 7 and 8 show each the second derivative curve of the spectrum chart for the raw material (A), raw material (B) and raw material (C), respectively, which are put in a data base as production ~~informations~~ information. When comparing the spectrum of FIG. 5 with respect to the peaks at 1726 nm and 2303 nm, at which the values exceed 3σ, with the data base of production information, they coincide with those of component (B) of FIG. 7, indicating that the component (B) is excessive. Therefore, a control signal for decreasing the amount of component (B) was given off, whereby the production process was turned back to ~~nomal~~ normal operation. When the peaks exceeding 3σ were originated from an impurity, the control was able to be realized by emitting a signal for diminishing such impurity.